

Appl. No. 09/206,852

REMARKS/ARGUMENTS

Claims 1 to 16 were rejected under 35 U.S.C. 112, first paragraph, because the specification was not enabling for any plasmid vector for any type of plant, but provided guidance for transformation of a dicot using a transgene that is part of a binary Ti plasmid vector. This ground of rejection is traversed.

The Examiner states that the use of "the binary Ti plasmid vector is an essential element of the invention" needed in order to ensure penetration of the meristematic tissue and to prevent chimeras. The Examiner goes on to state the "the invention as described in the specification would only be expected to operate with plants that are susceptible to *Agrobacterium* infection." Both of these statements are not valid.

It is well known in the art that the *Agrobacterium* system of transformation requires the use of a transposase enzyme to move the DNA of the plasmid vector into the plant cells. In the present invention, as described in the specification, no transposase enzyme is used. Thus, while the right and left border sequences are present from the Ti plasmid vector and they may assist in the transformation, the complete absence of the enzyme required in the *Agrobacterium* system clearly demonstrates that the present invention is not limited either to the use of the binary Ti plasmid vector or to plants that are susceptible to *Agrobacterium* infection. Indeed, this misconception that the present invention is somehow a combination of the *Agrobacterium* transformation technique permeates the Office Action. There is simply no reason to believe that the present invention would not work as described to transform monocots.

This misconception may also explain the focus of the Examiner on chimeras. The Examiner asserts that the binary Ti plasmid vector is needed to prevent chimeras. Without expressing any opinion on the validity of this statement, if true as asserted by the Examiner, it supports patentability of the present claims. Again, as stated above, the present invention does not depend on the specific form of the transgene used for transformation and does not rely on the *Agrobacterium* system. In fact, chimeras are produced by the present transformation technique.

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The present technique does not transform all of the meristematic cells. In the soybean plants transformed as described in the specification, pods that are set at lower nodes are more likely to be transformed than pods set at higher nodes.

Claims 1 to 2, 4, 6, 9 to 11, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Songstad *et al.*; claims 1 to 2, 5 to 6 and 9 to 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Burchi *et al.*; and claims 1 to 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burchi *et al.* in view of Ahokas *et al.* These grounds of rejection are traversed in view of the amendment that has been made to claim 1 and these remarks.

Claim 1 has been amended to recite that it is a method for producing transformed seed. None of the references cited by the Examiner teach the production of transformed seed. Accordingly, all of the claims 1 to 16 are now believed to be patentably distinct from the cited prior art references.

Claims 17 to 19 have been added to the application. They are directed to the production of transformed plants produced from seed transformed by the present invention, to seed set on such transformed plants and to a homozygous plant produced from self-pollinated seed transformed under the present invention. None of the cited prior art teach any methods for producing such transformed plants or seed.

The application has been amended to correct minor informalities, to further distinguish the application over the prior art, and to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention so as to place the application, as a whole, into a prima facie condition for allowance. Great care has been taken to avoid the introduction of new subject matter into the application as a result of the foregoing modifications.

Accordingly, the purpose of the claimed invention is not taught nor suggested by the cited references, nor is there any suggestion or teaching which would lead one skilled in the relevant art to combine the references in a manner which would meet the purpose of the claimed invention. Because the cited references, whether considered alone, or in combination with one

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another, do not teach nor suggest the purpose of the claimed invention, Applicant respectfully submits that the claimed invention, as amended, patentably distinguishes over the prior art, including the art cited merely of record.

Based on the foregoing, Applicant respectfully submits that its claims 1 to 19, as amended, are in condition for allowance at this time, patentably distinguishing over the cited prior art. Accordingly, reconsideration of the application and passage to allowance are respectfully solicited.

The Examiner is respectfully urged to call the undersigned at (613)-232-2486 to discuss the claims in an effort to reach a mutual agreement with respect to claim limitations in the present application which will be effective to define the patentable subject matter if the present claims are not deemed to be adequate for this purpose.

In view of the forgoing, early favourable consideration of this application is earnestly solicited.

Respectfully submitted,

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